

**REMARKS**

Claims 8-9 are cancelled and claims 1 and 16 are amended. Seven (7) Claims (claims 1-5 and 17) are pending.

***Claim Rejections under 35 USC §103***

**Claim 1 is rejected under 35 U.S.C §103 (a) as being unpatentable over US Patent Publication 2001/0045676 to Winterton, et al in view of US Patent No. 5213801 to Sakuma et al.**

The rejection of the claim 1(b) is moot in view of the cancellation of claim 1(b) through this amendment.

**Claim 1 is rejected under 35 U.S.C §103 (a) as being unpatentable over US Patent Publication 2001/0045676 to Winterton, et al and Sakuma et al in further view of US Patent No. 4933410 to Okrongly. For the following reasons, the Examiner's rejection is respectfully traversed.**

Applicants respectfully submit that a prima facie case of obvious has not been established, because the primary reference, alone or in combination with the secondary references, does not disclose or suggest all of the limitations of the invention as currently claimed. The Examiner correctly points out that the teachings of first reference (Winterton et al. ) and second reference (Sakuma et al) do not describe that the antimicrobial peptides are covalently attached to the LbL coating through the reactive sites (office action dated September 28, 2007, 4<sup>th</sup> paragraph at page 4). However, Applicants respectfully disagree with the Examiner in the office action of April 10, 2008 regarding that the third reference (Okrongly) teaches the principle of functionalizing the surface for attachment of various proteins. The principle will be the same whether the protein is attached to polystyrene or any material. This statement is too succinct to be true.

The third reference discloses that “[w]ith the increasing expansion of biological research and commercial biological applications, there has been a concomitant increasing need for **laboratory equipment** capable of specifically binding to complementary ligands and receptors. In order to provide **solid substrates, particularly labware**, for specific complex formation, it is necessary to bind a wide variety of ligands and receptors, frequently proteins, to the surface.” (Column 1, lines 13-20). “The **solid substrate** may exist in any form, including, but not limited to: reaction vessels, reagent tubes, beakers, cuvettes, columns, microtiter plates, Petri dishes,

fabricated articles, beads, rods, fibers, strands, membranes, discs, or plates. The articles are normally formed by **molding polystyrene** at least substantially free of crosslink, usually resulting in a clear, smooth surface,” (column 2, lines 48-55). To achieve the goal, the third reference also discloses “formed substantially uncrosslinked polystyrene products are functionalized employing hydroxymethylamides for electrophilic substitution on the phenyl groups. The resulting functionalized polystyrene may be used for reacting with a wide variety of functionalities, particularly associated with macromolecules, to provide for a high density of covalently bonded macromolecules.” (column 2, lines 3-13).

As discussed above, the essential steps of Okrongly's invention are to functionalize a polystyrene solid surface to provide a high density of functional groups for covalently linking a moiety of interest to said surface by contacting the polystyrene solid surface with an alpha-substituted N-hydroxymethyl acetamide in tetramethylenesulfone in the presence of an acid catalyst. As such, it is improper to combine the first and second references with the third reference. The first and second references do not have the required polystyrene solid surface to be functionalized. The contact lens described in the second reference comprises a silicone-containing hydrogel material. A silicone-containing hydrogel material is certainly not able to be used as laboratory equipment such as reaction vessels, reagent tubes, beakers, cuvettes, columns, microtiter plates, Petri dishes, fabricated articles, beads, rods, fibers, strands, membranes, discs, or plates as recited by the third reference.

The Federal Circuit's decision in *In re Gordon*, supra, illustrates this point well. If a proposal for modifying the prior art in an effort to attain the claimed invention causes the art to become inoperable or destroys its intended function, then the requisite motivation to make the modification would not have existed. *In re Ratti*, 270 F.2d 810,813,123 U.S.P.Q. 349, 352 (C.C.P.A. 1959) (holding the suggested combination of references improper under 103 because it “would require a substantial reconstruction and redesign of the elements shown in a prior art reference as well as a change in the basic principles under which the reference's construction was designed to operate”).

In sum, Applicants respectfully submit that since the cited references in combination do not disclose all of the limitations of the invention as currently claimed, the applicants' invention is not obvious. As such, Applicants respectfully request withdrawal of the 35 U.S.C. 103(a) rejection over claim 1.

**Claims 2, 3, and 8-10 are rejected under 35 U.S.C §103 (a) as being unpatentable over Winterton, et al and Sakuma et al as applied to claim 1(b) above, and in further view of Diaz-Achirica, et al. For the following reasons, the Examiner's rejection is respectfully traversed.**

Rejections of claims 8-10 are moot in view of their cancellation. The claims 2-3 are dependent on the claim 1. As discussed above, Applicants believe the claim 1 is now in conditions for allowance. Accordingly, the claims 2-3 are also in conditions for allowance.

**Claims 2, 4, 5, 6, and 16-18 are rejected under 35 U.S.C §103 (a) as being unpatentable over Winterton, et al and Sakuma et al , and Okrongly as applied to claim 1(a) above, and in further view of Diaz-Achirica, et al. For the following reasons, the Examiner's rejection is respectfully traversed.**

Rejections of claims 4, 5-6 and 18 are moot in view of their cancellation. The claim 2 is dependent on the claim 1. As discussed above, Applicants believe the claim 1 is now in conditions for allowance. Accordingly, the claim 2 is also in conditions for allowance.

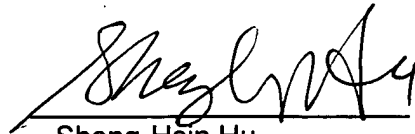
The claims 16-17 are also in conditions for allowance based on the discussion above in the second 103(a) rejection.

### **CONCLUSION**

In view of the above, applicants believe that the claims, as presented, are now in conditions for allowance.

Should the Examiner believe that a discussion with Applicants' representative would further the prosecution of this application, the Examiner is respectfully invited to contact the undersigned. The Commissioner is hereby authorized to charge any other fees which may be required under 37 C.F.R. §1.16 and 1.17, or credit any overpayment, to Deposit Account No. 50-2965.

Respectfully submitted,



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